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What is claimed is:

1. A method of inducing differentiation of an isolated marrow stromal cell into an endodermal cell, said method comprising contacting said isolated marrow stromal cell with at least one endodermal/neuronal precursor differentiation-inducing compound, thereby inducing differentiation of said isolated marrow stromal cell into a endodermal/neuronal precursor cell and contacting said endodermal/neuronal precursor cell with at least one endodermal differentiation-inducing compound thereby inducing an endodermal cell.

2. The method of claim 1, wherein said isolated marrow stromal cell is a human cell.

3. The method of claim 1, wherein said endodermal/neuronal precursor differentiation-inducing compound is a trophic factor.

4. The method of claim 1, wherein said endodermal/neuronal precursor differentiation-inducing compound is a growth factor.

5. The method of claim 1, wherein said endodermal differentiation-inducing compound is an antioxidant.

6. The method of claim 1, wherein endodermal differentiation-inducing compound is a growth factor.

7. The method of claim 4, wherein said growth factor is selected from the group consisting of platelet-derived growth factor, fibroblast growth factor 2, and nerve growth factor.

8. The method of claim 6, wherein said growth factor is selected from the group consisting of basic fibroblast growth factor, fibroblast growth factor 2

9. The method of claim 1, wherein said endodermal/neuronal precursor differentiation-inducing compound is an anti-oxidant.

10. The method of claim 5, wherein said anti-oxidant is selected from the group consisting of beta-mercaptoethanol, dimethylsulfoxide, butylated hydroxytoluene, butylated hydroxyanisole, ascorbic acid, dimethylfumarate, and n-acetylcysteine.

11. The method of claim 5, wherein said anti-oxidant is beta-mercaptoethanol.

12. The method of claim 5, wherein said anti-oxidant is butylated hydroxyanisole.

13. The method of claim 9, wherein said anti-oxidant is selected from the group consisting of beta-mercaptoethanol, dimethylsulfoxide, butylated hydroxytoluene, butylated hydroxyanisole, ascorbic acid, dimethylfumarate, and n-acetylcysteine.

14. The method of claim 9, wherein said anti-oxidant is beta-mercaptoethanol.

15. The method of claim 9, wherein said anti-oxidant is dimethylsulfoxide.

16. The method of claim 9, wherein said anti-oxidant is dimethylsulfoxide and butylated hydroxyanisole.

17. The method of claim 1 wherein said endodermal cell is an insulin-secreting pancreatic islet cell.

18. The method of claim 17 wherein said endodermal cell differentiation-inducing compound is basic fibroblast growth factor and butylated hydroxyanisole.

19. The method of claim 17 wherein said endodermal cell differentiation-inducing compound is basic fibroblast growth factor and beta-mercaptoethanol.

20. A method of producing an isolated endodermal cell, said method comprising isolating a marrow stromal cell, contacting said isolated marrow stromal cell with at least one endodermal/neuronal precursor differentiation-inducing compound, thereby inducing differentiation of said isolated marrow stromal cell into a endodermal/neuronal precursor cell and contacting said endodermal/neuronal precursor cell with an endodermal differentiation-inducing compound thereby inducing an endodermal cell.

21. The method of claim 20 wherein said endodermal cell is an insulin-secreting pancreatic islet cell and said endodermal differentiation-inducing compound is an insulin-producing pancreatic islet differentiation-inducing compound.

22. A method of treating a human patient having a disease, disorder or condition of an endodermal tissue, said method comprising obtaining a bone marrow sample from a human donor, isolating stromal cells from said bone marrow sample, inducing said stromal cells to differentiate into selected isolated endodermal cells, and administering said selected isolated endodermal cells to the body of said human patient, wherein the presence of said selected

isolated neuronal cells in said body of said human patient effects treatment of said disease, disorder or condition.

23. The method of claim 22, wherein said disease, disorder or condition of an endodermal tissue is selected from the group consisting of Type I diabetes, Type II diabetes, pancreatitis, inflammatory bowel disease, stomach cancer, colon cancer, colo-rectal cancer and liver disease.

24. The method of claim 22, wherein prior to administering said selected isolated endodermal cells, said selected isolated endodermal cells are transfected with an isolated nucleic acid encoding a therapeutic protein or peptide, wherein when said protein or peptide is expressed in said cells said protein or peptide serves to effect treatment of said disease, disorder or condition.

25. The method of claim 24, wherein said isolated nucleic acid encodes a therapeutic protein or peptide selected from the group consisting of a cytokine, a chemokine, insulin, glucagon, another endocrine hormone, a trophic protein, a growth factor, an antibody, and a tumor toxic protein.

26. A method of treating a human patient in need of endodermal cells, said method comprising obtaining marrow stromal cells from a human patient, propagating said marrow stromal cells in culture under conditions that induce their differentiation into selected endodermal cells, transplanting said selected endodermal cells into said human patient in need of said selected endodermal cells, thereby treating said human patient in need of endodermal cells.

27. The method of claim 26 wherein said endodermal cells are insulin-secreting pancreatic islet cells and said endodermal differentiation-inducing compound is an insulin-producing pancreatic islet differentiation-inducing compound.

28. An isolated endodermal cell made by a method of inducing differentiation of an isolated marrow stromal cell, said method comprising contacting said isolated marrow stromal cell with at least one endodermal/neuronal precursor differentiation-inducing compound, thereby inducing differentiation of said isolated marrow stromal cell into a endodermal/neuronal precursor cell and contacting said endodermal/neuronal precursor cell with an endodermal differentiation-inducing compound thereby inducing an endodermal cell.

29. The cell of claim 28, wherein said cell is a human cell.

30. The cell of claim 28 wherein said endodermal cell is an insulin-secreting pancreatic islet cell and said endodermal differentiation-inducing compound is an insulin-producing pancreatic islet differentiation-inducing compound.

31. An isolated endodermal cell made by a method of inducing differentiation of an isolated marrow stromal cell, said method comprising contacting said isolated marrow stromal cell with at least one endodermal/neuronal precursor differentiation-inducing compound, thereby inducing differentiation of said isolated marrow stromal cell into a endodermal/neuronal precursor cell and contacting said endodermal/neuronal precursor cell with an endodermal differentiation-inducing compound thereby inducing an endodermal cell wherein said endodermal cell is further transfected with an isolated nucleic acid encoding a therapeutic protein or peptide, and further wherein when said protein or peptide is expressed

in said cell said protein or peptide serves to effect treatment of a disease, disorder, or condition associated with a tissue of endodermal origin.

32. The cell of claim 31, wherein said isolated nucleic acid encodes a protein or peptide selected from the group consisting of a cytokine, a chemokine, insulin, glucagon, another endocrine hormone, a trophic protein, a growth factor, an antibody, and a tumor toxic protein.

33. The cell of claim 31, wherein said cell is a human cell.

34. An isolated endodermal cell made by a method of producing an isolated endodermal cell, said method comprising isolating a marrow stromal cell, contacting said isolated marrow stromal cell with at least one endodermal/neuronal precursor differentiation-inducing compound, thereby inducing differentiation of said isolated marrow stromal cell into a endodermal/neuronal precursor cell and contacting said endodermal/neuronal precursor cell with an endodermal differentiation-inducing compound thereby inducing said endodermal cell

35. The cell of claim 34, wherein said cell is a human cell.

36. The isolated endodermal cell of claim 34 wherein said isolated endodermal cell is an insulin-secreting pancreatic islet cell endodermal differentiation-inducing compound is an insulin-producing pancreatic islet differentiation-inducing compound.

37. An isolated endodermal cell made by a method of producing an isolated endodermal cell, said method comprising isolating a marrow stromal cell, contacting said isolated marrow stromal cell with at least one endodermal/neuronal precursor differentiation-

inducing compound, thereby inducing differentiation of said isolated marrow stromal cell into a endodermal/neuronal precursor cell and contacting said endodermal/neuronal precursor cell with an endodermal differentiation-inducing compound thereby inducing said endodermal cell wherein said endodermal cell is further transfected with an isolated nucleic acid encoding a therapeutic protein or peptide, and further wherein when said protein or peptide is expressed in said cell, said protein or peptide serves to effect treatment of a disease, disorder, or condition associated with a tissue of endodermal origin.

38. The cell of claim 37, wherein said isolated nucleic acid encodes a protein or peptide selected from the group consisting of a cytokine, a chemokine, insulin, glucagon, another endocrine hormone, a trophic protein, a growth factor, an antibody, and a tumor toxic protein.

39. The cell of claim 37, wherein said cell is a human cell.

40. The isolated endodermal cell of claim 37 wherein said isolated endodermal cell is an insulin producing pancreatic islet cell and said endodermal differentiation-inducing compound is an insulin-producing pancreatic islet differentiation-inducing compound.

41. An MSC derived cell culture that comprises cells, at least some of which simultaneously express polypeptide or mRNA markers that are characteristic of at least endodermal and ectodermal cell types.

42. The culture of claim 41 wherein said cells simultaneously express nestin and a polypeptide or mRNA marker characteristic of an endodermal cell type.

43. The culture of claim 41 wherein said cells simultaneously express nestin and a polypeptide or mRNA marker characteristic of a pancreatic cell.

44. The culture of claim 41 wherein said cells simultaneously express nestin and ceruloplasmin.

45. The culture of claim 41 that proliferates under conditions that are non permissive for the proliferation of bone marrow stromal cells.

46. A method of producing an isolated endodermal/neuronal precursor cell, said method comprising

1) isolating a marrow stromal cell

2) culturing the marrow stromal cell under conditions suitable to produce an endodermal/neural precursor culture that comprises cells at least some of which simultaneously express polypeptide or mRNA markers that are characteristic of at least endodermal and ectodermal cell types.

47. ———The method of claim 46 comprising selecting a single endodermal/neuronal precursor cell from the endodermal/neuronal precursor culture and culturing the endodermal/neuronal precursor cell to produce a clonal a endodermal/neuronal precursor culture.

48. The method of claim 46 comprising culturing the endodermal/neuronal precursor cell in a media comprising an antioxidant.

49. The method of claim 48 wherein said antioxidant is beta-mercaptoethanol.

50. The method of claim 48 wherein said antioxidant is butylated hydroxyanisole.